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Antecedents and mediating factors of organizational alignment

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ANTECEDENTS AND MEDIATING FACTORS OF ORGANIZATIONAL ALIGNMENT

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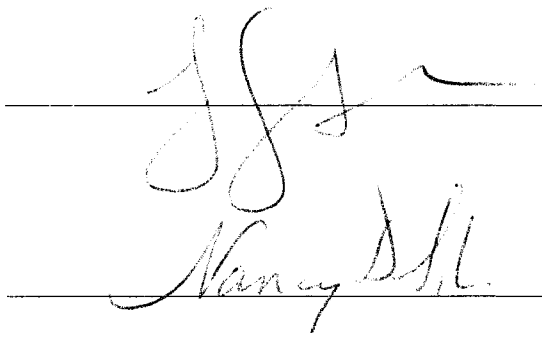

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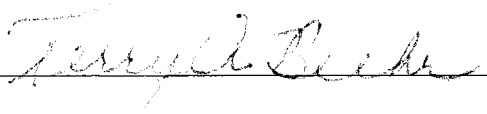

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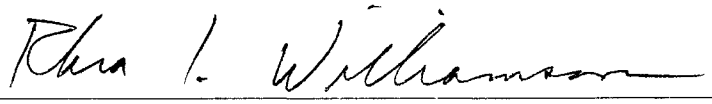

ABSTRACT

ANTECEDENTS AND MEDIATING FACTORS OF ORGANIZATIONAL ALIGNMENT

by Cynthia Schoolcraft Hannah

Building upon the work of Beehr, Phillips, Glazer, and Hansen (2002) this research explores the relationship between supervisor support for subordinate enhancement and stressors with organizational structural alignment. Employees' knowledge, skills, and abilities (KSAs) and employees' perceived proficiency on those KSAs are explored as a form of qualitative role overload. Role stressors in this study include role ambiguity, role conflict, quantitative role overload, and qualitative role overload. Self-report survey data from 454 employees of a multi-national semi-conductor capital equipment firm are analyzed. Supervisor support for subordinate enhancement positively relates to organizational structural alignment and stressors partially mediate this relationship. Implications for theory and practice are discussed.

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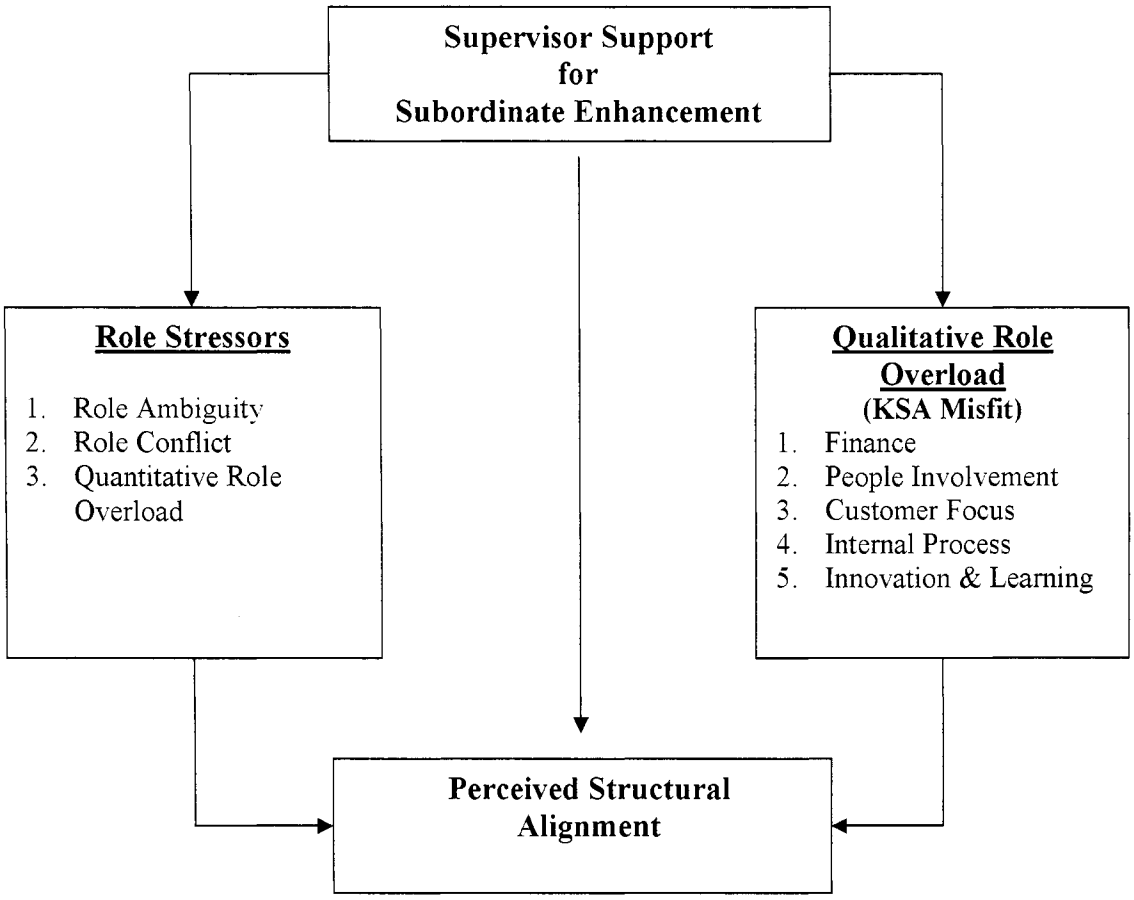
INTRODUCTION

There is general agreement in research and applied settings that organizational alignment, defined by Semler (1997) as "the degree to which an organization's design or structure, strategy, and culture are cooperating to achieve the same desired goals" (p. 23), is important. Each of these components of alignment at the organizational level also requires alignment at the group and individual level (Cummins & Worley, 2001). Structural (or goal) alignment (as opposed to strategic or cultural alignment) has received attention from researchers, including studies on work place structures and processes, such as job design (Workman & Bommer, 2004), communication of goals, manager effectiveness, and support for subordinate development (Beehr, Phillips, Glazer, & Hansen, 2002). Although research on other types of alignment (strategic, environmental, performance, and cultural) is minimal, alignment of structural processes continues to be a promising area for theory development and testing. This study examines structural alignment in terms of one's perception that his or her business unit's functioning aligns with the organization's goals. Role stressors, including role ambiguity, role conflict, and quantitative role overload, as well as qualitative role overload and supervisor support for subordinate enhancement will be examined as antecedents of structural alignment. Role stressors will also serve as mediators of the relationship between supervisor support for subordinate enhancement and structural alignment (see Figure 1).

The theoretical foundation of alignment research is open systems theory. Organizations develop structures and boundaries from relationships and behavioral patterns that maintain a cycle of input-transformation-output (Kahn, Wolfe, Quinn,

Figure 1. Framework of structural alignment antecedents.



Snoek, & Rosenthal, 1964; Katz & Kahn, 1966). Building on systems theory, Nadler and Tushman (1989) presented one of the first and well-recognized studies on alignment (they referred to it as congruence) in organizations. Semler (1997) advanced Nadler and Tushman's ideas regarding the organization system by focusing on the alignment of six distinct organizational aspects, including agreement on goals, reward systems, strategy, values, performance, and environment. These theories center on the interaction of a variety of systems within the overarching organizational system. Alignment of these systems was hypothesized to lend the greatest probability of goal attainment, which was deemed inherent to effective and efficient organizational performance (Nadler & Tushman; Semler).

Alignment theory advances systems theory on inputs (including employee resources), processes, and outputs by building an integrative theory of the elements that support, reinforce, and contribute to effective system operations. As a result, it links to another classical organizational theory, role theory. Organizations are a series of hierarchies (e.g., work groups, departments, and business units). Outputs at a macro level (e.g., division production rates) are the aggregate of outputs at the micro level (e.g., employee production rates). Additionally, organizational level inputs (e.g., visions, goals, missions) form the input for micro level inputs (e.g., individual level goals; Cummins & Worley, 2001). Moreover, individual employees, as micro components of the organization, must align with the work environment, specifically their work role or job, in order for alignment to occur at the macro levels (group and then organizational level) of the system.

Role theory encompasses the fit of the person to his or her environment. Person-environment (P-E) fit research theorizes that attitudes and behaviors result from individuals' interactions with their environment (Edwards, 1996). P-E fit can be approached from a needs versus supply approach (i.e., individuals' needs versus what the organization supplies to meet those needs) or a demands versus abilities perspective (Edwards). Organizational stress research has embraced the demands versus abilities paradigm of P-E fit (Edwards). Moreover, some classic definitions of stress include environmental demands that exceed the abilities of the individual (Shirom, 1982). Misfit between role demands and an individual's abilities creates organizational strain(s) (Van Harrison, 1985).

The demands-abilities premise of P-E fit is also conceptually advantageous for alignment research. The emphasis of alignment is on the parts of the organization performing in uniformity, in contrast to a focus on an individual's personality match to an organization on goals and values, which reflects fit research. Alignment is more reflective of organizational outputs and not individual motivation or satisfaction. This study approaches alignment by considering individuals' knowledge, skills, and abilities (KSAs) to perform important tasks in relation to individuals' perceptions of their business unit's alignment with the organization's goals. As a result, it links together fit of the individual's abilities to the demands of the organization as an antecedent to perceived alignment.

Alignment is difficult to measure as it is intangible and hard to achieve (Robinson & Stern, 1997). However, the degree to which an organization can achieve structural or

goal alignment will impact its ability to enhance its functioning and effectiveness (Beehr et al., 2002; Nadler & Tushman, 1989; Ostroff, Kinicki, & Tamkins, 2003; Semler, 1997). These and other studies (Middleton & Harper, 2004; Montesino, 2002; Workman & Bommer, 2004) have focused on outcomes of alignment, such as company satisfaction (Beehr et al.), transfer of training (Montesino), and readiness for adoption of new information systems (Middleton & Harper).

Few studies have examined antecedents of alignment (Beehr et al., 2002; Gibson & Birkinshaw, 2004) or explored individual skill and job fit for organizational outcomes (e.g., Beehr & Newman, 1978). Antecedents examined include organizational context (i.e., discipline, support and trust; Gibson & Birkinshaw) and communication about goals, managerial effectiveness, and employee enhancement (Beehr et al.). These antecedents are often reflected in effective use of human resources (Flamholtz, Randle, & Sackmann, 1987). They are also similar to antecedents of job satisfaction, transfer of training, and readiness to adopt new information systems.

Organizations that effectively use and train their human resources (employees) will ensure alignment among its various structures and practices (Semler, 1997). Unfortunately, many organizations take a unidimensional look at organizational alignment performance by focusing on finances, and they fail to consider coordination among people and resources (Richmond, 1997). Contemporary management theories advocate inclusion of more comprehensive evaluation of organizations (Kaplan & Norton, 1992). The present study, therefore, focuses on the extent to which various aspects of human resources, including, supervisor support for subordinate enhancement

and role stressors relate to structural alignment (in terms of people's perceptions that their business unit is aligned with the organization's goals; see Figure 1). Qualitative role overload (operationalized as lack of skill proficiency for achieving important job tasks) is referred to distinctly from the other role stressors, as qualitative role overload reflects specific job-related KSAs and not generic role stressors that could be easily assessed in any organization (as quantitative role overload, role conflict, and role ambiguity are assessed)

Beehr et al. (2002) found that communication of goals, managerial effectiveness, and support for subordinate enhancement are antecedents of structural alignment. Supervisor support for training and development and role clarity were two constructs of employee enhancement used by Beehr et al. Building upon their research, the present study examines supervisor support for training and development as a form of subordinate enhancement. Work-related role stressors, including role ambiguity, role conflict, quantitative role overload, and qualitative role overload, will be examined as antecedents to structural alignment. Role stressors are demands, constraints, or opportunities one faces due to his or her position in an organization (Schuler, 1980).

Roles are one of the smallest, but most fundamental operating components of an organization (J. R. French, Jr. & Caplan, 1972). Role stressors are generally linked to individual strains, including heart disease (J. R. French, Jr. & Caplan), ulcers, cancer, asthma, hypertension, and backaches (Beehr & Newman, 1978; Schuler, 1980). However, role stressors also contribute to deterioration of an organization's performance (Beehr & Glazer, 2005), especially when individuals are impeded from performing their

best (J.R. French, Jr. & Caplan). Organizational role design is important for structural reasons and goal alignment. Organizational structure divides labor into roles and assigns each position specific tasks and responsibilities (Rizzo, House, & Lirtzman, 1970). Individuals' reports of role stressors might signal a lack of alignment between organizational structures and communication regarding employees' roles and as a result might influence an organization's overall ability to align its various components.

Stressors indicate a possible misfit between an individual and his or her work environment that results either from a lack of rewards and needs fulfillment or a mismatch of the individual with role demands (Edwards, 1996; Van Harrison, 1985). Stressors are generally assessed by asking respondents to indicate the extent to which they perceive the misfit (Shirom, 1982), vís á vís items reflecting undue demands or constraints. In the present study, this is how three role stressors (role ambiguity, role conflict and quantitative role overload) are assessed. Shirom identified this as a methodological weakness in current stress assessments because it asks respondents to indicate whether the demand is present in their role. For qualitative role overload, a molecular approach that considers individual behavioral aspects of the stressor is used (Lindell, Clause, Brandt, & Landis, 1998). Qualitative role overload is operationalized as employees' perceptions of the importance of knowledge, skills, and abilities (KSA) and their proficiency with the KSAs. It is believed that one experiences qualitative role overload when one perceives that the importance of a KSA is greater than one's proficiency with it, thus a KSA misfit. Therefore, although qualitative role overload *is* a type of role stressor, it is not measured in the same way as the generic role stressors and,

therefore, from this point forward qualitative role overload will be referred as such and the generic role stressors will be referred to as role stressors. Thus, the term *role stressors* will refer to role ambiguity, role conflict, and quantitative role overload only.

Aligning workers' skills and job requirements is noted as one of the top trends in the ever-turbulent and increasingly-international economy (Flamholtz et al., 1987). However, it is not a new consideration for role theorists (W. L. French & Bell, 1999). Employees' abilities should be matched with organizational demands to improve effectiveness (Flamholtz et al.) and decrease strain (Beehr & Bhagat, 1985). Organizations must seek to minimize strain on the system that results from individuals who are in roles where skills have become obsolete (Flamholtz et al.) or individuals lack the managerial or technical expertise to perform the role (Van Harrison, 1985). Misfit between individuals' skills and abilities with demands of their jobs create strains for both individual and organization (J. R. French, Jr., Rogers, & Cobb, 1974). Unfortunately, qualitative role overload has received limited attention in literature, although there is indication that it leads to job dissatisfaction, job tension, and low self-esteem (J. R. French, Jr. & Caplan, 1972). Qualitative role overload will be examined for its direct relationship with structural alignment and its mediating relationship between supervisor support for subordinate enhancement and perceived structural alignment.

Perceived support for career enhancement is also investigated as an antecedent to employees' perceptions of organizational structural alignment. A supervisor's relationship with a subordinate involves communicating the goals of the organization, expectations of the subordinate's role, and providing support. This relationship serves as

a focal point for organizational structures regarding training and development. Supervisors influence and reinforce the need for training and development and strongly influence subordinates' participation in training activities (Noe, 1996). For an organization, maximizing fit between an individual and his or her role reduces strain on the individual and strain on the system (Newman & Beehr, 1979). Beehr et al. (2002) found support for a direct relationship between a supervisor's role in supporting subordinate development and training activities. Therefore, the present study seeks to provide further empirical support for this relationship.

Investigating structural alignment by only considering the direct effect of antecedent variables (supervisor support for subordinate enhancement, role ambiguity, role clarity and role overload) fails to account for the many inputs that operate simultaneously in an organizational system (Preacher & Hayes, 2005). House and Rizzo (1972) stated that effects of leadership practices are best understood if role variables are considered as intervening variables. They found that role stressors mediate the relationship between leadership behaviors and organizational effectiveness, such that poor leadership behaviors led to greater role stressors, which led to poor perceptions of organizational effectiveness. Thus, role stressors and qualitative role overload will be examined as partial mediators of the relationship between supervisor support for subordinate enhancement and perceived structural alignment. This study differs from previous research on alignment as it focuses on individual work roles as key organizational system components. Additionally, role stressors (with the exception of role clarity, Beer, Voelpel, Leibold, & Tekie, 2005) have not been considered to be

related to alignment. Finally, qualitative role overload, operationalized as KSA misfit, is a new consideration in terms of role stress research.

In this thesis, a review of literature regarding organizational alignment is presented first. Each antecedent, role ambiguity, role conflict, quantitative role overload, qualitative role overload (KSA misfit), and supervisor support for subordinate enhancement, are then presented, reviewed, and defined. In doing so, a foundation for linking role stressors, qualitative role overload, and supervisor support for enhancement with structural alignment between the business unit and goals of the organization will be established. Hypotheses are presented after a review of literature. Figure 1 depicts the expected relationships among the study variables.

LITERATURE REVIEW

Systems Theory

Systems theory was first established in the natural sciences by Ludwig von Bertalanffy (1950) and later applied to organization systems by Katz and Kahn (1966). Systems theory generally holds that each organization is a series of inputs, processes, and outputs (W. L. French & Bell, 1999). Von Bertalanffy described a system as the interaction of a set of elements. One of the primary services of an organized system is an operation plan for a series of processes that fit together the various parts of a system toward an overall goal (Kahn et al., 1964). A system, therefore, is a group of interactive, interdependent, and interrelated parts that operate as a set that forms an identifiable whole (W. L. French & Bell, 1999).

Organizations, as open systems, receive input or information from three primary sources: the environment, resources, and history (W. L. French & Bell, 1999). Opportunities for improvements to a system come from monitoring the flow of work as it moves through an input-throughput-output process (Smith, 2005). Organizations can do little to change history or to control the external environment. Therefore, the main domain in which organizations can improve their performance is resource management. Resources include assets that are available to an organization including people, knowledge, technology, and capital (W. L. French & Bell).

Hierarchy of Organizational Systems. Open systems have a hierarchical design with each level of the system stemming from units that compose lower levels (Cummins & Worley, 2001). Individuals working in groups form departments or divisions that

work together to form an organization. Input, transformation, output, and alignment processes occur at each level. Organizational processes, structures, and designs provide critical inputs to group and individual levels, and organization of work at individual and group levels influences functioning at organizational level (Cummins & Worley). Thus, alignment of activities across levels of an organization promotes integration of work across all levels and reduces potential for conflict.

Alignment

Katz and Kahn (1966) outlined a series of internal organizational processes that guide organizational behavior, including procedures for achieving goals and administration processes. More than thirty-years later, Semler (1997) outlined organizational components that reinforce and establish alignment in an organization. Inputs that align to achieve overall organizational alignment include the environment (strategic fit), individual and organizational performance (ideal and actual behavior), culture, and structure (i.e., goals and reward systems).

According to Semler (1997), environmental alignment occurs when goals of an organization align with needs of the external environment, including marketplace and stakeholders' demands. Performance alignment is consistency between employees' behaviors and an organization's goals. Cultural alignment occurs when there is agreement between strategy and tactical behaviors that are supported to achieve goals. Structural alignment is goal agreement in each part of the organization. These different forms of alignment facilitate organizational outcomes by reducing barriers to cooperation and performance (Semler).

In the present study, structural alignment is the focal form of alignment. It has received considerable attention (Beehr et al., 2002; W. L. French & Bell, 1999; Middleton & Harper, 2004; Montesino, 2002; Semler, 1997; Workman & Bommer, 2004), but there is still need to refine and add to our understanding of it.

Structural Alignment. It is desirable to identify factors that strengthen alignment, positive outcomes of alignment, measurement of alignment, and strategies to improve its presence (Semler, 1997). Despite acknowledgement of the importance of organizational structures and processes on organizational alignment, limited attention has been given to studying its antecedents. Beehr et al. (2002) explored structural alignment and defined it as "agreement among employees regarding reward systems, goals, strategies, and objectives" (p. 5). They focused on antecedents and found that communication of goals and support for employee enhancement, relate to structural alignment. Organizational structures include processes that range from complex interacting systems, such as reward systems (Semler) and configuration of work teams. Each structure plays a different role within an organization's process. In this study, structural alignment is viewed as employees' perceptions of their business unit's or functional organization's alignment with the organization's goals. This research examines one of the most fundamental structural units of an organization, individual roles. Role-related stressors will be studied as correlates of one's perceptions of his or her business unit's alignment with organizational goals (a part of structural alignment).

Goals. Purpose and goals are fundamental elements of open systems (W. L. French & Bell, 1999). Semler's (1997) theory indicates that goals overlap in a variety of

alignment domains including, structural alignment, cultural alignment, and strategic alignment. Therefore, understanding the role of goals in alignment is prerequisite to understanding alignment of all types.

Organizations are continually seeking to influence member behavior (Kahn et al., 1964) toward a common purpose. Goals are one means used to unify an organization's efforts and are expected to lead to fulfillment of desired output or the organization's vision (Collins & Porras, 1991). Goals and vision provide performance standards, incite effort, and focus attention on desired outcomes (Collins & Porras; Kirkpatrick, Locke, & Latham, 1996).

Semler's (1997) cascading goals approach to structural alignment explains that goals of each part of an organization flow among one another to support an organization's goals. This reflects the interconnectedness of an organizational system's parts. Coordination around shared resources means that changes in goals in one area will result in changes in another (Torraco, 2005). Goals also introduce and outline process requirements which create a structure that then influences knowledge and capabilities that employees must possess to contribute to the process (Torraco). In alignment, goals serve multiple roles including communicating organizational structure and expectations and unifying focus of a system to achieve desired outcomes.

Coordination of activities of all groups of an organization is necessary to achieve goals (J.R. French, Jr. & Caplan, 1972; Semler, 1997). The extent to which inputs align with each other is indicative of how successful an organization will be in achieving outputs. Organizational alignment research has mostly focused on the extent to which

alignment of an organization's components have yielded desired outputs or organizational performance. Nadler and Tushman (1988) developed the congruence model as a tool for analyzing alignment between elements of an organization's system. The congruence model operates on a premise that for organizations to achieve desired outputs there must be alignment between its input components. Indices of alignment include systems with the environment, individual units to the organization, and individuals with their organizational roles (W. L. French & Bell, 1999; Smith, 2005). Antecedents of structural alignment that will be examined are role characteristics, including role ambiguity, role conflict, quantitative role overload, and qualitative role overload.

Antecedents of Alignment

Role Theory. One key feature of an organization is an incumbent's role. Design of a role, including task structure and goal clarity, should align with design of the larger organization and group systems in which it operates (Cummins & Worley, 2001). Role theory (Kahn et al., 1964) explains how an individual comes to perceive his or her role in an organization. Role expectations, or beliefs, attitudes, and behaviors regarding what should or should not be done in a role, are communicated to an individual by a variety of role senders including supervisors and coworkers (Beehr & Glazer, 2005). These people are part of an incumbent's role set. Thus, a role reflects a set of expectations from people in one's role set. Members of one's role set have an influence over what an incumbent perceives he or she should do (J. R. French, Jr. & Caplan, 1972). Each member of an

organization performs behaviors that he or she perceives are relevant to his or her role in the organization (Kahn et al.).

In an organizational system, areas of functional specialization, division of labor and reward systems reinforce and communicate a large part of individual role expectations (Kahn et al., 1964). It is a natural extension of perceived expectations for role behaviors to emanate from organizational goals. Role behaviors are activities performed by an individual as part of an organizational system (Kahn et al.). Both individuals and organizations seek dependability in roles. Organizations seek dependable role performance for proper systems operations, and individuals seek role clarity and predictability for effective movement toward goals (Kahn et al.).

Person-Environment (P-E) Fit. Person-environment fit, especially demands versus abilities, is at the center of role stress (Edwards, 1996). If employees perceive a misfit between their roles and the needs of their work environment, strain situations might result (Beehr & Bhagat, 1985). More specifically, a misfit between demands of one's job and one's abilities (Beehr & Bhagat; J. R. French, Jr. & Caplan, 1972) often leads to negative reactions including psychological, physiological, and behavioral strains that can directly affect the organization (Beehr & Glazer, 2005). Abilities include skills, knowledge, and time (Edwards). One way to address the extent to which people perceive misfit is by asking if there are problems, such as insufficient skills to carry out one's work. Another way is to ask if skills are important and if one has proficiency in them. The former was done to assess generic quantitative role stressors, and the latter was done to assess qualitative role overload. Role ambiguity, role conflict, and quantitative

overload are considered in terms of presence or absence of the conditions (Shirom, 1982). Qualitative overload is assessed on the importance and proficiency of specific skills for a job, and therefore is included as a separate box in the proposed model (see Figure 1).

Role Stressors. "Employees' roles serve as loci for stress" (J. R. French, Jr. & Caplan, 1972, p. 32). Role stressors have received attention as antecedents to individual employment outcomes, such as job satisfaction, performance, and health (Beehr & Bhagat, 1985; J. R. French, Jr. & Caplan). However, limited attention has been given to how individuals' perceived stressors might affect organizational alignment.

Three widely studied role characteristics are role ambiguity, role conflict, and quantitative role overload (Beehr & Glazer, 2005; Schuler, 1980). Role ambiguity is a lack of clarity regarding one's expected behaviors (Beehr & Glazer; J. R. French, Jr. & Caplan, 1972; Kahn et al., 1964). Role ambiguity results when an individual is unclear about the scope of his or her responsibilities or information regarding requirements of his or her role is lacking (Kahn et al.). From a systems perspective, role ambiguity results from failure to provide adequate inputs or information to the individual regarding expectations, obligations, and consequences (J. R. French, Jr. & Caplan). Beehr et al. (2002) found that role clarity or the "extent to which an employee is certain of the requirements of his/her specific position" (p. 10) positively related to structural alignment. Clear roles gave employees a framework for performing in a manner that was consistent with the organization's expectations and goals. When there is role clarity, there is increased awareness of the expectations of one's job (Beehr et al.). Clarity of one's role plays a central part in movement toward individual and organizational goal

attainment (Kahn et al.). Clear instructions are a hallmark of business units that are aligned (Gibson & Birkinshaw, 2004).

Role conflict reflects conflicting messages from one or more individuals (House & Rizzo, 1972; Kahn et al., 1964). It results from competing expectations associated with an individual's role. Competing expectations can come from the same source or multiple sources. Compliance with one expectation makes it difficult to comply with the other (Kahn et al.). Role conflict has been found to relate to lower job performance (Lee, Bobko, Earley, & Locke, 1991), decreased personal effectiveness (Kahn et al.), lower job satisfaction and higher job-related tension, job related threat, and feelings of futility (J. R. French, Jr. & Caplan, 1972). When messages regarding a person's work role conflict, it is difficult to achieve all the goals (Locke, Latham, & Erez, 1988).

Quantitative role overload occurs when a person is expected to do more than he or she has time to do (Yousef, 2002). It is a type of role conflict (Kahn et al., 1964) that focuses on the sum of all work that an employee is expected to accomplish. If resources, such as equipment, people, time, or money are insufficient, demands on the individual become taxing to the individual and organization's health. This type of overload is viewed as quantitative in nature as the work quantity is greater than the available resources (J. R. French, Jr. & Caplan, 1972). Often role overload can result from processing multiple requests that when taken individually or in the abstract seem possible but are impossible given time and individual constraints (Kahn et al.). When there is overload, goals cannot adequately be achieved (W. L. French & Bell, 1999).

Qualitative Role Overload. Effective use of human resources has been defined as "effective use of knowledge, skills, and talents" (Flamholtz et al., 1987, p. 43). However, given fluctuations and changes in the workplace, individuals may be asked to take on work that requires knowledge, skills, and abilities beyond their current training which may result in qualitative overload (J. R. French, Jr. & Caplan, 1972). This study considers qualitative role overload in terms of fit of individual KSAs with required work duties. Van Harrison (1985) defined individual stress in the organization as "the extent to which individual skills and abilities meet the demands of the job" (p. 24). This definition of fit relates to the construct of qualitative role overload, reflecting a need for one to work on activities that "require skills, abilities, and knowledge beyond what the person has" (J. R. French, Jr. & Caplan, p. 40).

Previous researchers assessed qualitative role overload with statements such as "'the organization expects more of me than my skills and/or abilities'" (Ivancevich & Matteson, 1980, cited in Yousef, 2002, p. 105) and "the difficulty of assignments" (J. R. French, Jr. & Caplan, 1972, p. 40). In this study, individuals were asked to assess the importance of a given KSA for their roles and their own proficiency for that KSA. This measure is consistent with P-E fit measures of stress calculated from respondent's desired amounts of job characteristics and the actual presence of the characteristic (Shirom, 1982). Job analysis relies on measures that assess KSAs related to jobs along rating scales of importance, time spent on particular tasks, degree of difficulty to obtain specific skills (Hughes & Prien, 1989; Lindell et al., 1998), and task frequency (Richman & Quinones, 1996). Similar measures for assessing training needs within organizations are

adapted by practitioners (Fairbairns, 1991; Mirabile, 1991; Nowack, 1991). Employees may rate job characteristics based on importance, need for training, and likelihood of reward (Fairbairns). Overlaps (where scores were high on all three dimensions) are considered areas for development and training. Nowack used a five-point scale to assess the importance and proficiency on job related tasks. Respondents' importance rating was multiplied by their proficiency rating. Mean scores were compared and the higher the mean score, the more critical the training need. Mirabile offered that calculations of skill gaps could be done utilizing either complex calculations or simple subtraction of required skills from actual skill. Subtraction was used in this study. The adaptation of job analysis and needs assessment measures provides a framework for identifying possible qualitative overload by identifying a misfit between individual skill and his or her position. Additionally, the simple calculation of subtracting actual ability from required ability to meet demands of work roles is consistent with P-E calculations (Shirom, 1982).

Previous role stress research has explored qualitative role overload as a molar job characteristic (broad interpretation of the presence of qualitative overload) and not as a molecular variable (focus on specific behaviors related to the job; Lindell et al., 1998). Molecular analysis of role demands has received attention in the applied literature to identify training and development needs, but not as a measure of role stress. Assessing both importance and proficiency investigates role stress at a more granular level than the molar qualitative overload statements previously used. Respondents' perceptions of qualitative overload are not assessed, rather it is inferred when a KSA is perceived important, but the individual lacks proficiency in the KSA. In other words, qualitative

overload results when importance of a KSA exceeds proficiency. Qualitative role overload is explored as a molecular variable and potential (and under-studied) antecedent to structural alignment.

Skills are important precursors for moving toward organizational goal achievement. The degree to which individuals might understand, value, and commit to a goal is irrelevant if they lack job skills and knowledge to do the work (Kirkpatrick & Locke, 1996). Furthermore, an employee will be limited in his or her ability to respond to challenges if he or she lacks ability (Locke & Latham, 1990). If an employee is aware of KSAs that are important to his or her job and perceives high proficiency on those KSAs, he or she should be positioned to work toward achieving the organization's goals. A difference between the demands of an organization and an employee's abilities is an important component of role stress (Beehr & Bhagat, 1985). However, role stressors are rarely studied by asking about what one perceives the organization's demands to be and the extent to which one feels he or she has the abilities to meet those demands. In this study KSA fit (i.e., the extent to which one's proficiency with certain KSAs and the importance of the KSAs in performing one's job are similar) should reduce strains, including decreasing structural (or goal) misalignment. A job that requires KSAs that are beyond the scope of what an individual has may result in qualitative overload or a mismatch between skills and job demands. In other words, qualitative role overload, operationalized as KSA misfit, will relate to perceptions that one's business unit is operating in accordance with the organization's goals.

Based on the foundations of individual goal theory and motivation (Locke, 1991; Locke & Latham, 1990), improving employees' abilities on KSAs important to their jobs could be a critical leverage point that can strengthen perceived structural alignment. Individuals who feel they have the skills to do their jobs are empowered to do the required work (Beehr et al., 2002).

Supervisor Support for Subordinate Enhancement

Managers and supervisors often become a focal point for implementing organizational policies (S. W. Schneider, 1975). Managers must identify mismatched components in the organization and find solutions to resolve them (Nadler & Tushman, 1988). Locke and Latham (1990), in their work on individual goal commitment and high performance, emphasize the importance of a manager's role in ensuring subordinates are properly trained. Supervisors influence performance goals, provide feedback, work to develop career plans, and coordinate training decisions (London, 1993). Furthermore, training is purported to be a primary way of improving alignment (Beehr et al., 2002; Semler, 1997) and reducing role overload (J. R. French, Jr. & Caplan, 1972). Beehr et al. examined "employee enhancement" in terms of "assisting employees in achieving the organization's objectives by providing them with opportunities to improve necessary skills and knowledge and allowing autonomy and involvement in decision-making processes of the organization" (p. 10). Their definition includes skill improvement, role clarity, and individual empowerment. Beehr et al.'s study found that employee enhancement is an antecedent of structural alignment.

Employees who are provided with an opportunity for training and development are more likely to be aligned with organizational goals as the organization has provided information in the form of training to develop skills that are important to goals (Beehr et al., 2002) and skills that will be valued in the future (Ito & Brotheridge, 2005). Skills targeted for training reflect and align with organizational priorities. It is proposed that leaders who promote subordinate enhancement will also have subordinates with stronger perceptions of structural alignment (Beehr et al.).

Supervisor support has been demonstrated to impact use of training on the job (Montesino, 2002) and outcomes such as job performance (Lee et al., 1991), improved productivity, and work quality (Smith, 2005). It follows that supervisor support would be positively related to similar constructs in organizational effectiveness, including structural alignment. The present study does not consider actual employee enhancement activities of the organization (e.g., training seminars, classes, on-the-job training), but it does examine subordinates' perceptions of supportive development practices by their direct supervisor and advancement opportunities in the organization. Individuals' perceptions of the practices of their supervisors are considered relatively accurate assessments of actual practices (House & Rizzo, 1972). Employees were asked to assess the extent to which they were supported for training in their subunits by answering questions regarding opportunities for learning and advancement on the job, manager support for training through time and resources, and employee enhancement practices, including discussing career development and creating a development plan.

Supervisors, as the link between the organization's goals and subordinates' development, play a primary role in ensuring that organizations' policies are reflected in subordinates' behaviors. Supervisor support is argued to be one the most important factors related to subordinates' use of training (Montesino, 2002). Supervisor support for development (i.e., subordinate enhancement) also significantly affects subordinates' participation in development activities and behaviors (Noe, 1996).

Employees who are supported in developing their KSAs can reduce qualitative role overload (i.e., misfit between perceived importance and proficiency of KSAs). Supportive leadership practices should also reduce role stressors (Rizzo et al., 1970). Thus, it is expected that supervisor support will reduce role stressors and qualitative role overload, which in turn would positively influence perceptions of organizational structural alignment.

Structural Alignment Model Summary

Structural alignment is a desirable organizational outcome (Semler, 1997). Systems theory considers the organization an open system that receives inputs from the environment, translates those inputs through a variety of processes, and creates outputs. In the present study, input includes supervisor support for subordinate enhancement, primary throughputs include role stressors and qualitative role overload, and tertiary throughput includes structural alignment. These inputs and throughputs serve as precursors to desirable outputs (e.g., productivity), which is not measured here though is proposed as an outcome in other studies of structural alignment (Semler). Employees' roles and KSA fit are primary throughputs, as they are central processes by which

supervisor support for subordinate enhancement influence organizational structural alignment. By providing supervisor support for subordinate enhancement, role stressors and qualitative role overload will decrease and perceived structural alignment will increase.

Hypotheses

Based on the above literature review and theoretical model, six hypotheses are posed.

H_1: Supervisor support for subordinate enhancement will positively relate to perceived structural alignment.

H_2: Role ambiguity will negatively relate to perceived structural alignment.

H_3: Role conflict will negatively relate to perceived structural alignment.

H_4: Quantitative role overload will negatively relate to perceived structural alignment.

H_5: Qualitative role overload will negatively relate to perceived structural alignment.

H_6: Role stressors and qualitative role overload will partially mediate the relationship between supervisor support for subordinate enhancement and perceived structural alignment.

METHODS

Participants

An email with a link to an organization-wide survey was sent to all 2,900 employees of an international high technology capital equipment organization. Responses were collected from employees located in 16 countries for a response rate of 30.9% (898 out of 2,900). However, only data collected from the United States are included in this study as the survey was administered in English and there are numerous potential flaws involving non-translated or validated surveys (van de Vijver & Hambleton, 1996; van de Vijver & Leung, 2000). Additionally, focusing on United States allows for better assessment of organizational alignment, as primary functions of each of the business units and functional organizations are located in the USA. The organization's locations in the United States include the company headquarters in San Jose, CA, two secondary sites in Oregon and Arizona, and a variety of local sales sites throughout the United States. Total response for the United States region was 454 or 54.6% of the completed surveys worldwide.

Forty-one percent of the 454 respondents were from the organization's headquarters in San Jose, CA. Sixty-four percent of the US employees were employed more than five years at the organization. Seventy-one percent were in individual contributor (non-manager) positions, 23.4% were manager/supervisors, and 5.5% were director/vice president/executives. This is consistent with employment data provided by the organization which indicated an average tenure of 5.88 years (S.D. = 4.73 years) with 59.4% of respondents employed five or more years with the organization. Survey

respondents also reflect a similar composition of the work force by job type. The organization's worldwide population consists of 81.7% individual contributors and 6.0% director/executive/vice president. The actual population has 12.3% managers and supervisors and the survey population has 23.4%. Therefore, managers are over-represented and individual contributors are slightly under-represented. Demographic data regarding age and sex were not ascertained due to organizational concerns for confidentiality. However, given the general consistency of demographic results from the survey on tenure and job type, there is supporting evidence that the sample population demographics would be reflective of organizational data with males comprising 84.9% of the workforce and a total population mean age of 39.57 (S.D. = 8.82 years).

Measures

Structural Alignment (see Appendix A, items 40-46). Survey items that identify organizational alignment goals were developed from the organization's mission, goals, and priorities statements. Beehr et al. (2002) used a similar methodology for their research on structural alignment. Employees were asked to rate their perceptions of the collective activities and behaviors of their business unit in terms of their consistency with the organization's goals. Respondents were given a series of seven items (e.g., "Managing expectations" and "Putting existing customers first"). The stem that preceded each item was "On a day-to-day basis, my business unit/functional organization acts in a way that is consistent with..." Respondents used a five-point Likert-type scale ranging from 1 "not at all" to 5 "extremely" to indicate their perception of their business unit or functional organization's activities in regard to each statement. A mean score of seven

items reflected overall perception of alignment. Principal Components Factor Analysis with Varimax rotation supported structural alignment as one factor. Cronbach's alpha reliability for this measure was .87.

Role Stressors (see Appendix A, items 25-33). Respondents indicated their level of agreement with each of nine role stressor items using a five-point Likert-type scale ranging from 1 "strongly disagree" to 5 "strongly agree." Nine of 15 items with the highest factor loadings were taken from (Glazer, 1999) who adopted the measures for role stressors from previous research (Abdel-Halim, 1978; Beehr, Walsh, & Taber, 1976; Rizzo et al., 1970). Role ambiguity consisted of items 25-27. An example item is "I know exactly what is expected of me." Role conflict consisted of items 31-33. An example item is "I do things that are apt to be accepted by one person and not accepted by others." Role overload consisted of items 28-30. An example item is "It seems like I have too much work for one person to do." A Principal Components Factor Analysis with Varimax rotation and constraining the items to three factors demonstrated that one item expected to reflect role conflict and one item expected to reflect role overload loaded poorly. Therefore, a two-factor solution was preferred. Role overload items and role conflict items formed one factor. This is not uncommon as role overload is often subsumed in role conflict (J. R. French, Jr. & Caplan, 1972). Cronbach's alpha for role ambiguity was .83 and for role conflict, it was .71.

KSAs. Job knowledge, skills and abilities were assessed using 87 items that were rated twice by the individual. KSA items were developed by the Human Resources staff and developed from organizational interviews, literature review of job competencies

(e.g., Federal Aviation Association, 2005), and organizational insight. Using a face validity assessment, the Human Resources team assigned items to one of eighteen KSA groups. As the emphasis of this thesis is on KSAs that aid in perceptions of goal alignment, the 87 items were reviewed for their relevance to the organizational goals and condensed into general categories. Each item was reviewed for its relationship to the seven original goal statements and grouped under one of the statements. This yielded 56 retained items.

Importance scores were theorized to be most suitable for principal component factor analysis and reliability analyses. Proficiency scores and resulting KSA fit scores show more variability subject to the respondents' skills. The importance score for each of 56 KSA items was entered into a Principal Components Factor Analysis with Varimax rotation. This yielded a 12-component solution. Interpretation of the factors included the eigenvalue rule (Kaiser, 1960), scree plot analysis (Cattell, 1966), review of item loadings, and subjective review of theoretical and logical sense of the grouping (DeVellis, 2003). Although each of the 12 components had eigenvalues greater than one, the scree plot indicated a break in the relative value of the components at five (eigenvalue for the fifth component was 1.89 and the eigenvalue for the sixth component was 1.46). The resulting five components were reviewed for individual item loadings and item content. Items with factor loadings of .50 or higher and which were conceptually consistent with items loading on the component were retained. Twenty-three items (see Appendix A, items 1-23) were retained, comprising five components. These factors were

labeled finance, people involvement, innovation and learning, customer focus, and internal process.

The five components retained from the principal components analysis are consistent with current literature such as Baldridge National Quality Award (NIST, 2006) and balanced scored card (Kaplan & Norton, 2001) regarding areas of focus necessary for successful business operations. Kaplan and Norton presented the "balanced scorecard" (p. 71) as a comprehensive assessment model to give management a quick but accurate review of an organization. The scorecard approach takes an integrated perspective of business looking at four primary areas: finance, customers, internal business, and innovation and learning. Kaplan and Norton's scorecard approach has been adapted to provide insight on a variety of organizational process including human resource management (Beatty, Huselid, & Schneier, 2003). As KSA skill groups were not identified a priori, the scorecard model was used as a guide in naming the component KSA groups. A fifth KSA group of People Involvement was included from a general summary of quality management process (Null, 2005).

Finance (Appendix A, 1-7) included seven items (e.g., "Applying prudent financial judgment in decisions and actions") with Cronbach's alpha .89. Four items (e.g., "Involving others in decisions to build their support") comprised the People Involvement (α = .81) (Appendix A, 8-11). Innovation and Learning (α = .83) included five items (e.g., "Continually improving job/role specific skills that will improve job performance") with α = .83 (Appendix A, 12-16). Customer Focus (α = .77) had four items (Appendix A, 17-20) regarding customer interactions, such as "Representing

company effectively to customers." Internal Processes (Appendix A, 21-24) was formed by four items (α = .84) including "Allocating human, financial, and material resources." Reliabilities, means, standard deviation, and correlations for the KSA scores with the main study variables and correlations among the KSA groups are presented in Table 1. Intercorrelations do exist among the KSA subscales, however they are not as high as the reliabilities and most are low enough to suggest measurement of distinct job components.

Respondents were asked to rate each of the items twice on both importance of the item to their job and their perceived proficiency on each item. Both importance (i.e., "the extent to which this dimension is valuable for performing your current job") and proficiency ("the extent to which you feel you have mastery of this skill in your current job") were rated using a Likert-type scale, ranging from 1 "not at all" to 5 "extremely." Respondents were also given the option of "not applicable/don't know" and these responses were treated as missing data in the analysis.

Qualitative Role Overload. To assess qualitative role overload, ratings for KSA importance and KSA proficiency for each of 23 KSA items were used to calculate qualitative role overload on each subscale. The calculation was modified from Nowack's (1991) measure of importance and proficiency which called for a multiplication of importance and proficiency to determine critical development needs. Subtracting the scores allows for a measure that indicates the direction of misfit and not simply the magnitude; this calculation is consistent with P-E fit calculations (Shirom, 1982). KSA proficiency on each KSA item was subtracted from KSA importance on that same KSA item to obtain a qualitative role overload score for each KSA (KSA Importance – KSA

Table 1

Means, Standard Deviations, Reliabilities, and Partial Correlations Controlling for Position and Tenure

Variable	*n*	M	*SD*	1	2	3	4	5	6	7	8	9
1. Structural Alignment	393	3.87	.69	(.87)								
2. SSSE	425	3.18	.79	.34***	(.84)							
3. Role Ambiguity	349	2.20	.88	-.46***	-.42***	(.83)						
4. Role Conflict	424	3.24	.75	-.22***	-.23***	.24***	(.71)					
5. Finance	238	.56	.58	-.12	-.18**	.22**	.11	(.89)				
6. People Involvement	317	.39	.47	-.04	-.10	.08	.06	.63***	(.81)			
7. Customer Focus	325	.41	.49	-.19***	-.12*	.18**	.15**	.56***	.55***	(.77)		
8. Internal Process	275	.62	.64	-.18**	-.12*	.12	.17**	.59***	.50***	.54***	(.84)	
9. Innovation & Learning	320	.63	.58	-.18**	-.22***	.21***	.14*	.56***	.55***	.55***	.56***	(.83)

Note. Values in parentheses represent scale reliabilities. Reliability scores for variables 5 – 9 are calculated from variable importance scores. Partial correlations for variables 5-9 are qualitative role overload values (KSA Importance –KSA Proficiency). SSSE=Supervisor Support for Subordinate Enhancement. Partial correlations produced from pairwise analysis (n = 189-419).

$^{*}p \leq .05$. $^{**}p \leq .01$. $^{***}p \leq .001$.

Proficiency = Qualitative Role Overload Score). Qualitative role overload scores for each of the five KSA groups (or subscales) were determined on the basis of the average of the subtracted scores (the five factors pre-determined through factor analysis on the importance ratings). Each qualitative role overload composite could range from -4 to +4 for each item. A high positive difference score would indicate great misfit; the respondent is indicating that while a certain KSA is important he or she does not feel a sense of proficiency on it. Items with no difference (i.e., scores of 0) indicate fit between KSA importance and proficiency rating. That is, the extent to which a KSA is important is the extent to which one also has proficiency. Ratings of KSA proficiency that exceeded KSA importance rating indicated a misfit with the respondent indicating higher than necessary proficiency on a KSA. Such misfit scores (negative values) were recoded as missing from the dataset, as having greater proficiency than importance does not indicate qualitative role overload (though it might indicate qualitative role *under*load). From the Finance component 64 negative averages were eliminated, from People Involvement 94 were eliminated, from Innovation and Learning 58 were eliminated, from Customer Focus 56 were eliminated, and from Internal Process 58 were eliminated.

Supervisor Support for Subordinate Enhancement (See Appendix A, items 34-39). Respondents indicated their agreement with six items assessing perceived supervisor support for subordinate enhancement (e.g., "I have discussed my career development with my manager/supervisor this year"). Respondents rated their agreement with each item using a five-point Likert-type scale with responses ranging from 1 "strongly disagree" to 5 "strongly agree." These items were a repeat measure from previous

organizational studies conducted by the organization and included items adapted from career support scales from London (1993) and the Gallup Organization (Thackray, 2001). Principal components factor analysis confirmed a one-factor solution. Cronbach's alpha was .84.

Procedures

Self-administered on-line survey data were collected from August to September 2005 from employees of a high technology organization located in Silicon Valley. An anonymous organization-wide survey was used for this study. A training and development survey assessing KSAs, perceptions of organizational goal alignment, role stressors, and supervisor support for subordinate enhancement was developed by U.S. employees at the company's Human Resource headquarters. Items were further reviewed by the organization's training council and organization management. The author, who was part of the internal team developing the organizational study, was granted permission to use these data for the present study.

Employee participation in completing the survey was voluntary. The Human Resources team announced the survey to employees with an e-mail that explained the purpose of the survey and included a web link to the survey. Surveys were administered using web-based survey software. Employees accessed the survey using a secure web link and were given time to complete the survey during their regular working hours. Instructions included statements reinforcing anonymity of their responses and that responses would not be utilized for any performance reviews by the organization. Although an e-mail, followed by two reminders, was distributed to all 2,900 employees

worldwide and the survey was accessible online for three weeks, it is difficult to ascertain the exact number of employees who accessed the survey.

RESULTS

T-test for Mean Differences

T-tests were conducted to determine if there were mean differences on the main study variables (supervisor support for subordinate enhancement, role stressors, qualitative role overload, and structural alignment) based on position or tenure. Position consisted of two groups, individual contributor and manager/supervisor/executive. Mean differences for position type was found for structural alignment $t(391) = 13.72, p = .001$. The effect size of $d = -.37$ was a medium to small effect based on Cohen's standards (1988). Tenure also consisted of two groups, those who worked less than five years and those who worked for the company five or more years. Main study variables did not differ significantly based on the grouping category of tenure. However, to be conservative both position and tenure were controlled in the remaining analyses.

Descriptive Statistics and Partial Correlations

Descriptive statistics and a partial correlation matrix are presented in Table 1. All measures have acceptable levels of reliability at .71 or greater (Nunnally, 1978). Partial correlation scores provided support for hypotheses 1, 2, and 3. Hypothesis 4 cannot be tested; role conflict and quantitative role overload merged into one construct, role conflict. Supervisor support for subordinate enhancement positively correlated with perceived structural alignment ($r = .34, p \leq .001$). Role ambiguity negatively correlated with perceived structural alignment ($r = -.46, p \leq .001$). The newly formed role conflict variable negatively correlated with perceived structural alignment ($r = -.22, p \leq .001$).

Hypothesis 5 was partially supported. Of the five qualitative role overload variables, three negatively related to perceived structural alignment, including customer focus (-.19, $p \leq .001$), internal process (-.18, $p \leq .01$), and innovation and learning (-.18, $p \leq .01$). Finance and People Involvement did not significantly correlate with perceived structural alignment

Mediation Analyses

Role stressors (role ambiguity, role conflict and qualitative role overload) were expected to partially mediate the relationship between supervisor support for subordinate enhancement and organizational structural alignment (see Figure 1). Baron and Kenny's (1986) series of three regression steps is generally accepted for mediation analysis. These steps are described in terms of the present study. First, supervisor support for subordinate enhancement must relate to the mediators, role stressors, and the outcome variable, structural alignment. Second, role stressors must relate to structural alignment. Third, when entered into the regression equation simultaneously, variance in structural alignment predicted by supervisor support for subordinate enhancement must reduce considerably. Tables 2, 3 and 4 summarize regression analyses, which test Hypothesis 6. First, mediation analyses were performed conservatively with all role stressor mediators entered as one group and again with all qualitative role overload components entered as another group. Afterwards, mediation analyses were performed again with each significant mediator variable of the group mediation analyses (i.e., role ambiguity, role conflict, customer focus, and finance) entered in distinct regression equations.

Table 2

Hierarchical Regression Results: Supervisor Support as Predictor of Role Stressors and Structural Alignment

	Structural Alignment ($n = 392$)			Role Ambiguity ($n = 348$)			Role Conflict ($n = 423$)		
Variable	*B*	*SE*	ß	*B*	*SE*	ß	*B*	*SE*	ß
Step 1									
Position	.25	.08	.17***	.01	.11	.01	.33	.08	.21***
Tenure	-.06	.08	-.04	.02	.10	.01	.11	.08	.07
		$R^2 = .03^{**}$			$R^2 = .00$			$R^2 = .05^{***}$	
Step 2									
Position	.24	.07	.17***	.02	.10	.01	.35	.08	.22***
Tenure	-.05	.07	-.03	-.01	.10	-.01	.10	.07	.07
SSSE	.31	.04	.34***	-.45	.05	-.42***	-.21	.04	-.23***
		$R^2 = .14$			$R^2 = .17$			$R^2 = .11$	
		$\Delta R^2 = .11^{***}$			$\Delta R^2 = .17^{***}$			$\Delta R^2 = .05^{***}$	

Note. SSSE=Supervisor Support for Subordinate Enhancement.

[a]Qualitative role overload variables used.

$^{*}p \leq .05$. $^{**}p \leq .01$. $^{***}p \leq .001$.

Table 2 (continued)

	Finance[a] (n = 239)			People Involvement[a] (n = 316)			Innovation & Learning[a] (n = 319)			Customer Focus[a] (n = 324)			Internal Process[a] (n = 279)		
Step 1															
Variable	*B*	*SE*	ß	*B*	*SE*	ß	*B*	*SE*	ß	*B*	*SE*	ß	*B*	*SE*	ß
Position	.04	.08	.04	.05	.06	.05	.08	.07	.06	.17	.06	.17**	-.05	.08	-.04
Tenure	-.04	.08	-.04	.03	.06	.03	-.08	.07	-.06	-.10	.06	-.09	-.05	.08	-.03
	R^2 = .00			R^2 = .00			R^2 = .01			R^2 = .03**			R^2 = .00		
Step 2															
Position	.04	.08	.03	.05	.06	.05	.08	.07	.07	.18	.06	.17**	-.05	.08	-.04
Tenure	-.06	.08	-.04	.03	.06	.03	-.08	.07	-.07	-.10	.06	-.09	-.05	.08	-.04
SSSE	-.14	.05	-.18**	-.06	.03	-.10	-.16	.04	-.22***	-.07	.03	-.12*	-.10	.05	-.12*
	R^2 = .04			R^2 = .01			R^2 = .05			R^2 = .04			R^2 = .02		
	ΔR^2 = .03**			ΔR^2 = .01			ΔR^2 = .05***			ΔR^2 = .01*			ΔR^2 = .02*		

Note. SSSE=Supervisor Support for Subordinate Enhancement.

[a]Qualitative role overload variables used.

*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

Table 3

Hierarchical Regression Results: Predictors of Structural Alignment (n = 319)

	Variable	*B*	*SE*	B
Step 1	Position	.26	.08	.18**
	Tenure	-.06	.09	-.04
			$R^2 = .03^{**}$	
Regression Equation 1				
Step 2	Position	.31	.08	.21***
	Tenure	-.06	.08	-.04
	Role Ambiguity	-.34	.04	-.42***
	Role Conflict	-.12	.05	-.14**
			$R^2 = .25$	
			$\Delta R^2 = .22^{***}$	
Step 3	Position	.31	.07	.21***
	Tenure	-.05	.08	-.03
	Role Ambiguity	-.28	.04	-.35***
	Role Conflict	-.09	.05	-.10*
	SSSE	.16	.05	.19***
			$R^2 = .28$	
			$\Delta R^2 = .03^{***}$	

Note. SSSE=Supervisor Support for Subordinate Enhancement.

[a]Qualitative role overload variables used.

$^{*}p \leq .05$. $^{**}p \leq .01$. $^{***}p \leq .001$.

Table 3 (continued)

	Variable	*B*	*SE*	B
Regression Equation 2[a]				
Step 2	Position	.22	.11	.16*
	Tenure	.04	.12	.03
	Customer Focus	-.28	.13	-.22*
	Finance	.30	.12	.28**
	Innovation & Learning	-.18	.11	-.17
	Internal Process	-.21	.11	-.20
			$R^2 = .15$	
			$\Delta R^2 = .13^{***}$	
Step 3	Position	.21	.10	.16*
	Tenure	.04	.11	.03
	Customer Focus	-.28	.13	-.22*
	Finance	.29	.12	.26*
	Innovation & Learning	-.13	.11	-.12
	Internal Process	-.20	.11	-.19
	SSSE	.17	.07	.20**
			$R^2 = .19$	
			$\Delta R^2 = .04^{**}$	

Note. SSSE=Supervisor Support for Subordinate Enhancement.

[a] Qualitative role overload variables used.

*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

Table 4

Hierarchical Regression Results: Individual Role Stressors as Mediators of Structural Alignment

Variable	Step 2			Step 3		
	B	*SE*	ß	*B*	*SE*	ß
			Role Ambiguity (n = 320)			
Position	.27	.08	.18***	.28	.07	.19***
Tenure	-.07	.08	-.05	-.06	.08	-.04
Role Ambiguity	-.37	.04	-.46***	-.30	.04	-.37***
SSSE				.18	.05	.21***
R^2		.24			.27	
ΔR^2		.21***			.03***	
			Role Conflict (n = 391)			
Position	.32	.08	.22***	.29	.07	.20***
Tenure	-.04	.07	-.03	-.04	.07	-.02
Role Conflict	-.20	.05	-.22***	-.14	.05	-.15**
SSSE				.27	.04	.30***
R^2		.07			.16	
ΔR^2		.05***			.09***	

Note. SSSE=Supervisor Support for Subordinate Enhancement.

[a]Qualitative role overload variables used.

$^{*}p \leq .05$. $^{**}p \leq .01$. $^{***}p \leq .001$.

Table 4

Hierarchical Regression Results: Individual Role Stressors as Mediators of Structural Alignment

Variable	Step 2			Step 3		
	B	*SE*	ß	*B*	*SE*	ß
			Role Ambiguity (n = 320)			
Position	.27	.08	.18***	.28	.07	.19***
Tenure	-.07	.08	-.05	-.06	.08	-.04
Role Ambiguity	-.37	.04	-.46***	-.30	.04	-.37***
SSSE				.18	.05	.21***
R^2		.24			.27	
ΔR^2		.21***			.03***	
			Role Conflict (n = 391)			
Position	.32	.08	.22***	.29	.07	.20***
Tenure	-.04	.07	-.03	-.04	.07	-.02
Role Conflict	-.20	.05	-.22***	-.14	.05	-.15**
SSSE				.27	.04	.30***
R^2		.07			.16	
ΔR^2		.05***			.09***	

Note. SSSE=Supervisor Support for Subordinate Enhancement.

[a]Qualitative role overload variables used.

*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

Table 4 (continued)

Variable	Step 2			Step 3		
	B	*SE*	ß	*B*	*SE*	ß
			Customer Focus (n = 303)			
Position	.27	.09	.19**	.25	.08	.17**
Tenure	-.07	.09	-.04	-.05	.08	-.03
Customer Focus	-.26	.08	-.19***	-.21	.08	-.15**
SSSE				.28	.05	.31***
R^2		.06			.15	
ΔR^2		.03***			.09***	
			Finance (n = 231)			
Position	.20	.09	.15*	.20	.09	.15*
Tenure	-.01	.10	.00	.02	.09	.01
Finance	-.14	.08	-.12	-.08	.07	-.07
SSSE				.25	.06	.27***
R^2		.04			.11	
ΔR^2		.01			.07***	

Note. SSSE=Supervisor Support for Subordinate Enhancement.

[a]Qualitative role overload variables used.

*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

In order to perform the first mediation analysis, perceived structural alignment was first regressed on supervisor support for subordinate enhancement. After controlling for tenure and position, supervisor support for subordinate enhancement accounted for 11% of variance in perceived structural alignment. The overall model (see Table 2) was significant ($R^2 = .14, F(1, 388) = 51.17, p \leq .001$). Next, the relationship between supervisor support for subordinate enhancement and mediating variables, role ambiguity, role conflict, and each of five qualitative role overload variables were examined. After controlling for tenure and position (Step 1), supervisor support for subordinate enhancement added significant variance in role ambiguity (17%), role conflict (5%), and four of five qualitative role overload variables, including innovation and learning (5%), finance (3%), internal process (2%), and customer focus (1%). People involvement did not significantly relate to supervisor support for enhancement. Thus, People Involvement failed to pass the first criteria for mediation in Baron and Kenny's (1986) model and was excluded from further analyses.

Next, perceived structural alignment was regressed on control variables, mediators, and then supervisor support for subordinate enhancement. Control variables, tenure and position, were entered in Step 1. Role ambiguity and role conflict were entered in Step 2 of one regression model and qualitative role overload variables (Customer Focus, Finance, Innovation and Learning, and Internal Process) were entered in Step 2 of a second regression model. In both models, supervisor support for subordinate enhancement was entered at regression Step 3 (See Table 3).

In the first regression equation, role ambiguity and role conflict together accounted for a significant 22% of variance in perceived structural alignment after the control variables. Supervisor support for subordinate enhancement accounted for an additional significant 3% of variance. This amount of variance is smaller than when role stressors were excluded, indicating that role stressors partially mediate the relationship between supervisor support for subordinate enhancement and structural alignment. Next each role stressor was entered separately instead of together. After the control variables, role ambiguity accounted for a significant 24% of variance in perceived structural alignment and role conflict accounted for 7% of variance in perceived structural alignment. Supervisor support for subordinate enhancement explained an additional 3% of variance in perceived structural alignment in the regression equation with role ambiguity as mediator and an additional 9% of variance in the regression equation with role conflict as mediator (Table 4).

Although Baron and Kenny's (1986) tests are a standard in mediation analysis, researchers have noted insufficient results produced by the tests (Baron & Kenny; Sobel, 1982, 1988) and called for a further examination of significance of indirect effects. Sobel developed a test for calculating indirect effects, which has been further aided by the development of a series of computer macros for testing indirect effects using standard statistical software programs including SAS and SPSS (Preacher & Hayes, 2004). Most recently, Preacher and Hayes (2005) have updated this model to handle multiple mediators. The model uses a formula to generate a z score that is then compared to a critical p value. One limitation of the Sobel test is assumption of a normal distribution of

the mediation effects which are often positively skewed, rendering under-powered mediation tests (Preacher & Hayes). Therefore, p values for a one-tailed test ($z = 1.645$ when $p \leq .05$ and $z = 2.326$ when $p \leq .01$) are used in this study.

Using Preacher and Hayes's (Preacher & Hayes, 2004) macros, role stressors produced a combined z score of 5.27 ($p \leq .001$). In the equations with each mediator entered alone, role ambiguity produced a z-score of 5.76 ($p \leq .01$) and role conflict produced a z-score of 2.47 ($p \leq .01$). Thus, role ambiguity and role conflict are significant partial mediators of the supervisor support for subordinate enhancement and structural alignment relationship, both together and individually.

In the second set of regression equations, qualitative role overload variables, customer focus, finance, internal process, and innovation and learning were entered as a group of mediators of the relationship between supervisor support for subordinate enhancement and structural alignment. The set of qualitative role overload variables accounted for a significant 13% of variance in perceived structural alignment after controlling for tenure and position. Supervisor support for subordinate enhancement accounted for an additional significant 4% of variance above the mediators. These results suggest that as a group qualitative role overload variables mediate the relationship between supervisor support for subordinate enhancement and structural alignment. Separate regression equations were run for each qualitative role overload component as mediator (See Table 4). After the control variables, three qualitative role overload variables accounted for significant variance in perceived structural alignment. Customer focus, internal process, and innovation and learning each individually accounted for a

significant 3% of variance in perceived structural alignment. Finance did not account for significant variance in perceived structural alignment. Supervisor support for subordinate enhancement explained an additional 9%, 8%, and 7% of variance in perceived structural alignment in regression equations with customer focus, internal process, and finance and innovation and learning, respectively.

Following the Sobel (1982) test and utilizing the Preacher and Hayes (2004, 2005) macros, significance of the indirect path for supervisor support via the set of qualitative role overload components yielded a z-score of 2.06 ($p \leq .05$) and the following individual z-scores: finance ($z = 1.06$), customer focus ($z = 1.74$), internal process ($z = 1.46$), and innovation and learning ($z = 1.91$). The Sobel test supports partial mediation for customer focus and innovation and learning because the z-scores are greater than 1.645 critical value for one-tailed t-test ($p \leq .05$).

DISCUSSION

The objective of this study was to explore antecedents of structural alignment in an applied setting. Based on empirical research of previous studies (Beehr et al., 2002), supervisor support for subordinate enhancement was expected to be an antecedent. Based on P-E fit, organizational stress, and alignment theories, role stressors, including role ambiguity, role conflict, and qualitative role overload were also tested as potential and previously unexplored antecedents of structural alignment. Findings generally support hypotheses whereby role stressors and supervisor support for subordinate enhancement relate to perceived structural alignment and role stressors partially mediate the relationship between supervisor support for subordinate enhancement and perceived structural alignment.

Supervisor Support for Subordinate Enhancement and Structural Alignment

That supervisor's support for subordinate enhancement positively relates with perceptions of alignment is consistent with Beehr et al.'s (2002) research, in which they contended that supervisors are powerful sources of direction for career development. Organizations rely on supervisors to develop their subordinates. Supervisors influence subordinates' goals, provide performance feedback, and establish priorities for training and development (London, 1993). Supervisors, however, are often unaware of how providing support for development links to organizational outcomes (Ulrich, 1998). This study demonstrates that supervisor support for subordinate enhancement is instrumental to subordinates' perceptions that their business unit aligns with the organization's goals.

According to Semler (1997), perceptions of structural alignment are important for effective organizational functioning.

Through support for subordinate enhancement, supervisors not only impact performance within their own business unit but also higher level organizational performance measures (Rogers & Wright, 1998). By implementing human resource practices in their business unit, supervisors can create shareholder value by improving organizational processes through the improvement of how subordinates are able to perform their jobs (Tannenbaum, 1997). Moreover, supervisors and subordinates should be aware of subordinate development as a formal system of the organization (Tansky & Cohen, 2001). A supportive environment for training, policies for subordinate enhancement, and practices to reinforce training are more important than quantity of training (Tannenbaum).

Supervisor support for subordinate enhancement includes communication regarding career progress and resources for enhancing subordinates' skills. This interaction of supervisor with subordinate naturally includes communications about subordinates' management of role demands and developing or improving skills needed to respond to the situation. This communication of role expectations can reduce ambiguity.

Role Stressors

Role ambiguity and role conflict correlate negatively with structural alignment. As these role stressors increase, perceptions that one's business unit's goals are in alignment with the organizational goals decrease. In other words, when individuals perceive their role is unclear or receive conflicting information, they perceive the actions

of their business unit as inconsistent with the organization's goals. Lack of clarity and direction in their own role might be a reflection of the organization's confusion over its goals.

Role ambiguity and role conflict also partially mediate the relationship between supervisor support for subordinate enhancement and structural alignment. Role ambiguity and role conflict reduce positive effects of supervisor support for subordinate enhancement on perceived structural alignment. In particular, individuals' perceptions of role ambiguity influence perceptions that their business unit is unclear as to its function and priorities. After all, if a subordinate is unclear about his or her role, why should he or she think that the collective whole of his or her business unit is clear about its work? Everyday interactions and demands of the workplace provide messages regarding strategy and reinforce alignment (B. Schneider et al., 2003). If daily interactions create confusion and conflicts on priorities, then it reinforces the idea that the organization is confused about its goals. Thus, clarity is as critical factor in ensuring alignment (L. C. Williams, 2002).

Role conflict in the workplace assesses individual's perceptions of competing requests from role senders (Beehr & Glazer, 2005). One explanation for the negative correlation between role conflict and perceptions of business unit alignment with the organization is that competing requests or role expectations suggest lack of understanding about the organization's goals. Alternatively, a business unit that is not working in alignment with the organization might create an environment in which subordinates

experience greater role conflict. This latter consideration raises a competing hypothesis to that posed in this study and needs exploration in future research.

Qualitative Role Overload

Partial support was found for relationships between specific qualitative role overload variables (operationalized as KSA misfit), specifically customer focus, internal process, and innovation and learning with structural alignment. Each negatively correlated with perceptions of structural alignment. Of the qualitative role overload variables, customer focus and innovation and learning also mediated the relationship between supervisor support for subordinate enhancement and structural alignment. Mediation analyses provided further insight into the relationship of supervisor support for subordinate enhancement and qualitative overload. Of the five proposed qualitative role overload variables, supervisor support for subordinate enhancement accounted for significant variance in four: finance, customer focus, internal process, and innovation and learning. Generally, as supervisor support for subordinate enhancement increased, there was less qualitative role overload (i.e., employees indicated having finance, customer focus, internal process, and innovation and learning skills).

Customer Focus. Employees who perceive themselves as lacking KSAs on customer-focused tasks perceive their business unit as less aligned. In the organization studied, customer focus was also an organizational priority cited in the alignment statements. It is also identified as a priority for many other organizations and as a key metric for organizational analysis (Kaplan & Norton, 1992; NIST, 2006). Customer-focused qualitative role overload reflects the interaction of the organization with the

external environment, a key aspect of systems theory (Cummins & Worley, 2001) and organizational alignment (Semler, 1997). Customer focus requires skills that aid an organization to understand customer needs, meeting customer expectations, and listening to customers' ideas and concerns (NIST). Customer interactions revolve around time, quality, performance, and service (Kaplan & Norton). Organizations should include the customer perspective in internal alignment activities as customers are increasingly present and participating in the processes of the organization (B. Schneider et al., 2003). As a result, KSAs that relate to this relationship are valuable to the alignment process. Qualitative role overload on customer relationship skills negatively relate to perceptions of alignment.

Qualitative role overload on customer focus also partially mediates the relationship between supervisor support for subordinate enhancement and perceived structural alignment. When subordinates are not supported in enhancing skills, they may feel overloaded on their own ability to focus on customers' needs. This in turn reduces perceptions of structural alignment. If employees struggle with customer-focused qualitative overload, this is likely due to insufficient training. Because customer focus is important to the organization, employees perceive misalignment.

Innovation and Learning. Given the dynamic nature of the work environment, KSAs required for a job can change as inputs from customers and environment change. As a result, employee learning has evolved as a benchmark of organizational performance (NIST, 2006). Emphasis of KSAs for innovation and learning represent measures of on-the-job skill improvement and development, ongoing education, and

training. Thus, qualitative role overload on innovation and learning refers to lacking skills or abilities to be innovative and learn. In contrast to qualitative role overload on innovation and learning, supervisor support for subordinate enhancement focuses on formal development activities (e.g., development plans, opportunities, and resources). That qualitative role overload on innovation and learning correlated negatively with supervisor support for subordinate enhancement suggests that supervisors need to engage in formal development with and reinforce and motivate subordinates if subordinates are to develop skills and abilities pertaining to on-the-job learning.

Furthermore, that qualitative role overload on innovation and learning partially mediates supervisor support for subordinate development and perceived structural alignment, suggests that employees who strive to continuously improve are doing so in order to achieve the organization's goals. These employees, are thus, likely aware of organizational goals and make role-related decisions and improvements (Robinson & Stern, 1997).

In organizations that focus on continuous improvement, all employees have potential to be creative in improving systems. To foster creative improvement in reaching organizational goals, employees need to be able to identify useful ideas and respond to new opportunities (Robinson & Stern, 1997). Ability to respond to the environment and continuously improve is vital to an organization that wants to maintain competitive value and provide value to customers (Kaplan & Norton, 1992). For an organization to promote business unit alignment on innovation, employees need KSAs to incorporate innovation into their daily jobs.

In addition to formal training activities, organizations should foster employee KSA development on skills related to on-the-job adaptability and problem solving. This could strengthen perceptions of alignment. If employees are clear on how to innovate and learn on the job in accordance with organizational goals, their perceptions that the business unit is working in accordance with organizational goals should improve. Innovation and learning KSAs are important from a systems perspective because these skills reflect employees' abilities to respond to changes in environmental inputs in a manner that is consistent with the organization's goals (Robinson & Stern, 1997). Thus, employees who can react to environmental inputs in innovative ways can help their organization maintain or gain competitive advantage.

Internal Process. Qualitative role overload on skills that maintain the daily operation or processes of the organization negatively relate to perceived structural alignment. This skill set reflects 'throughputs' in systems theory (Cummins & Worley, 2001) and considers internal processes that support the functions of the organization (e.g., product development processes and order-fulfillment processes; NIST, 2006). Employees need skills to maintain organization's daily operations and meet environmental demands (Kaplan & Norton, 1992). Misfit on process skills relates to perceptions that a business unit's processes are out of alignment with organizational priorities. Internal process skills reflect operations of an organization including cycle times, costs, and quality (Kaplan & Norton). Employees need skills to break down processes and make adjustments and improvements. When employees lack skills to

adapt and refine processes, they may also project this lack of adaptability to a business unit's ability to respond and align toward goals.

Finance. Finance qualitative overload did not significantly mediate supervisor support for subordinate enhancement and structural alignment as an independent mediator. However, it did contribute to the combined mediation of perceived structural alignment by qualitative role overload variables. Organizations that address financial skill gaps may indirectly see improvements in structural alignment through reduced role ambiguity and role conflict. Financial objectives link to all other business objectives (Kaplan & Norton, 1996). The four qualitative overload variables in this study all significantly related to financial qualitative overload. Competency in financial skills may serve to reduce qualitative role overload demands driven by other areas of skill demand (e.g., customer focus).

People Involvement. People involvement focused on interpersonal relationships including involving others and communicating shared goals. Based on Beehr et al.'s (2002) research regarding communication of goals positive relationship with structural alignment, it is surprising that people involvement qualitative role overload did not relate to perceived structural alignment, supervisor support or role stressors. One explanation may be that people involvement had the lowest mean score of all the qualitative role overload variables. This indicates a small mismatch between importance and proficiency. Employees might not view interpersonal relationships and consensus building as KSAs directly related to the core focus of their job. As a result, employees

might not give as much attention and weight to the importance of these KSAs to their own development and to the alignment of the organization.

Implications, Limitations, and Future Research

Practical Implications. This study has interesting practical implications for managers of organizations who strive to align their business units with organizational goals. By understanding system characteristics that significantly correlate with structural alignment, it becomes possible for organizations to emphasize those elements that continue to support alignment with organizational goals. In the present study, structural alignment significantly correlates with supervisor support for subordinate enhancement, role ambiguity, role conflict, and qualitative role overload. Supervisor support for subordinate enhancement continued to relate with structural alignment even when role stressors were present.

Despite being measured and reported on separately in the analyses section of this study, qualitative role overload *is* a role stressor. Consistent with all role stressors, qualitative role overload is dependent on role messages. Organizations potentially can improve structural alignment by focusing on supervisor support for subordinate enhancement vís á vís attention to skill gaps, as well as to role definition. During the recruitment process, organizations focus on hiring and positioning employees in job roles that match their skills (Owen, 2004). However, ongoing attention will ensure that as roles change, employees will have skills needed to meet job demands. KSAs present an individual attribute that organizations can influence through systems, such as selection

and training. This is in contrast to personality or individual characteristics that are considered less malleable (Stevens & Campion, 1994).

Additionally, organizations that conduct job analyses and training needs assessment should consider the value this information may have beyond course design. As a strategic human resources analysis, it provides metrics to assess organizational systems. Moreover, it provides information on skill gaps that could be used to investigate skill development that links to specific organizational objectives (Homer, 2001).

Organizations that adopt management frameworks similar to the balanced scorecard or Baldridge performance criteria (Kaplan & Norton, 1996; NIST, 2006) need to develop employees' skills that relate to the content areas these programs advocate. This study provides empirical support for reducing qualitative overload in these key KSA areas (i.e., finance, innovation and learning, and customer focus) as a means to strengthen perceptions of structural alignment. Strengthening alignment is believed to be a precursor to effective organizational response to systems inputs, including customer demands. Employees' perceptions of internal organizational functions reflect customer experience (B. Schneider et al., 2003). By strengthening alignment and measuring internal perceptions of alignment, organizations can gain valuable information on the operations of the organization and use this information in their scorecard assessments and communications on how the organization is meeting its objectives.

Communication, especially communication with supervisors, is important to strengthening perceptions of structural alignment (Beehr et al., 2002). Additionally, communication is important to clarifying role expectations and eliminating conflict.

Organizations interested in improving perceptions of alignment could benefit from focusing on supervisors' communications regarding support for subordinate enhancement. Supervisor support for subordinate enhancement negatively relates to perceptions of role ambiguity and conflict. Enhancement support might reduce ambiguity and conflict by providing subordinates support to meet organizational demands through skill development opportunities supported by their supervisor. Another possible explanation is that supervisors who support opportunities for subordinate enhancement create an environment in which their subordinates perceive more alignment. When supervisors support skill development of their subordinates, the subordinates see the business unit as striving to align with organizational goals and practices.

Theoretical Implications. Although few studies have linked role stressors with organizational outcomes, this study demonstrates a negative direct relationship of both role ambiguity and role conflict with perceived structural alignment. Previous research has focused on leaders' perceptions of alignment, but has not incorporated subordinates' perspectives (B. Schneider et al., 2003). By approaching alignment from the perspective of subordinates who are responsible for achieving organizational goals, this research provides a link between individuals' experiences with the organization and their perceptions of the organization's performance.

Qualitative role overload has received limited attention beyond presence or absence of it. Qualitative role overload is conceptualized as a misfit between knowledge, skills, or abilities important to a job in relation to respondents' level of proficiency with those KSAs. However, it has rarely been examined that way. This study investigated

qualitative role overload in a manner consistent with the conceptual definition of role stress, that is, as a mismatch between role demands and individual skills. The measure developed in this study, shaped by applied literature (Mirabile, 1991; Nowack, 1991), emphasizes the need for improved understanding of the differences between knowledge, skills, and/or abilities that are important for performing one's job and one's proficiency with said KSA. This research provides support for qualitative role overload's relationship with structural alignment and provides an alternative consideration of how to measure qualitative role overload. That is, instead of measuring qualitative role overload as a respondent's perception of the presence or absence of the skills necessary for jobs, it can be measured by asking respondents to indicate which KSAs need to be developed in order to fulfill their assignment(s). Researchers (House & Rizzo, 1972; Shirom, 1982) have noted that asking respondents to indicate whether a demand is present or absent in their role may be a methodological limitation as it does not assess the actual presence of a mismatch between role demands and abilities. The way qualitative role overload was conceptualized in this study provides a potential new approach for its assessment.

Work roles provide organizations a building block for aligning organizational systems and achieving the improved alignment suggested by Semler (1997). Clear work roles reduce conflict and maximize a match between employees' skills and demands of jobs. Finding a balance in resources and demands makes it easier for employees to contribute to an organization in a meaningful way. Improving competency on skills required for a job helps employees work toward achieving organizational goals (Ulrich,

1998). Design of unambiguous work roles and supervisor support for subordinate enhancement provides a foundation for alignment of organizational systems.

Limitations. Foremost, data collection in an applied setting is one of this study's strengths, but it also serves as a limitation. The organization's purpose for the survey was to assess training needs. The author of this thesis, working for the organization, wanted to study alignment and thus created new measures and included some validated measures to assess role stressors, supervisor support for subordinate enhancement, and structural alignment. However, the organization also limited the number of questions asked. Because the organization's focus was on training needs gap analysis, as many KSAs they could think of as important for their organization were included; they were not based on validated KSA measures. KSA groups for this study, however, were created after data collection.

Additionally, this research relied solely on self-report data. Lack of method variance has received increased attention as a potential limitation in organizational research that relies on self-reported perceptions in the workplace (L. J. Williams, Cote, & Buckley, 1989). Self-report data relies on employees' perceptions of skills that are important to their jobs and their level of proficiency. These perceptions might not be reflective of actual behaviors (Lindell & Whitney, 2001). However, findings of employees' perceptions of internal organizational activities as reflective of customers' reported experiences (B. Schneider et al., 2003), support the use of self-report data in measuring alignment.

The qualitative role overload measurement was derived from individuals' ratings of KSAs important to their job and their proficiency with those KSAs. Although informed that responses will be confidential and not used to evaluate job performance, the measure might be subject to response bias, such as social desirability. Indicating lack of proficiency on core areas of responsibility might indicate a mismatch of respondents' skills for the job and respondents might feel particularly vulnerable in responding openly to those items. Addition of more traditional measures of qualitative role overload (e.g., "My job requires skills I do not have") would allow for internal validation of qualitative role measures. Although using gap assessment scores (i.e., importance minus proficiency scores used in this study) to determine areas for development are advocated in applied literature (Mirabile, 1991; Nowack, 1991), these calculations have not been sufficiently validated. This methodology warrants continued refinement and analysis.

Future Research. Semler's (1997) organizational alignment theory provides a starting point for many potential areas of exploration on structural alignment and related organizational systems. The present study was concerned with antecedents and mediators of structural alignment. Future research should consider a model that builds from this study and existing research on antecedents of perceived structural alignment (e.g., Beehr et al., 2002) and include output variables related to actual organizational performance, such as financial performance and quality reports, as well as self-report measures.

Inclusion of measures on fit between individuals' skills with important job tasks would also benefit from less subjectivity. This could be done using job descriptions that outline tasks assigned to the job and employees' ratings of proficiency or obtaining

supervisors' assessment of importance and employees' ratings of proficiency. Analysis of structural alignment at the department or divisional levels in an organization might provide valuable information on alignment relationships. Aggregating scores would allow for the analysis of variations in alignment perceptions by business unit. Variations may also exist in skill importance and proficiency based on the primary function of the business unit (e.g., finance department versus human resources department). Qualitative role overload would benefit from analysis at the business unit level.

In the present study, qualitative role overload was determined by a mismatch between importance and proficiency of a given skill. Future studies should examine the relationship between qualitative role underload (i.e., the extent to which one has proficiency on KSAs deemed less important) and structural alignment.

Conclusion. Operations and processes in the internal environment of the organization are a vital part of systems alignment. The present research explored individual role characteristics, including role ambiguity, role conflict, and qualitative role overload in relation to structural alignment in a semi-conductor capital equipment organization. In addition to supervisor support for subordinate enhancement, role stressors related to perceptions of alignment. By providing opportunities and support for enhancing one's skill set and designing jobs to reduce ambiguity and conflict, organizations are establishing systems that support alignment of the structural elements of the organization.

Job roles are the fundamental element by which employees get work done, however job roles are often neglected in organizational improvements. Investments in

organizational processes that improve the match between employees' KSAs and jobs and support employee development improve the organization's intellectual capital while reducing demands (Ulrich, 1998). Employees are generally aware that the work environment shifts to respond to market demands (Ulrich). Elimination of demands is not feasible. However, uncertainty in the workplace can be reduced by providing employees with clear instructions and training in order to meet demands of their jobs.

Senior leadership of organizations might outline overarching goals of the organization, but they cannot dictate specific steps necessary to achieve them (Kaplan & Norton, 1992). Employees who believe they are competent on KSAs important to their role can focus on their tasks and not on managing inconsistencies between demands and their skills. Developing employees' KSAs invests in the intellectual capital of the organization. It empowers employees to perform in their role because they are aware of the valued skills that they bring to the organization. Thus, structural alignment can be ensured through developing employees skills required to fulfill their roles, reducing ambiguity and conflict, and providing consistent support for employee opportunities to enhance their skill set.

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APPENDIX A: QUESTIONNAIRE

IMPORTANCE: Please indicate the extent to which you feel this dimension is valuable for performing your current job.

PROFICIENCY: Please indicate the extent to which you feel you have mastery of this skill in your current job.

Finance

1. Applying prudent financial judgment in decisions and actions.
2. Identifying and estimating costs.
3. Planning for changing trends that can affect business operations.
4. Understanding financial and business practices relevant to my role and responsibility.
5. Using knowledge of industry, business, customers and consumers to prepare forecasts and priorities.
6. Managing work performance to reach or deliver expected results.
7. Adopting new management procedures to improve quality and productivity.

People Involvement

8. Adapting content and level of detail to meet others' needs.
9. Involving others in decisions to build their support.
10. Adjusting the way work is performed to meet changing conditions and demands.
11. Identifying and communicating shared interests and goals.

Innovation and Learning

12. Continually improving job/role specific skills that will improve job performance.
13. Coaching or mentoring subordinates to prepare them for greater responsibility.
14. Providing behavioral specific feedback to employees.
15. Recognizing and rewarding contributions of others.
16. Measuring progress toward quality standards.

Customer Focus

17. Representing company effectively to customers.
18. Incorporating customers' feedback to enhance organization's effectiveness.
19. Responding to customer problems in a timely manner.
20. Sharing information and ideas with customers.

Internal Process

21. Revising work plans to meet budget and schedule requirements.
22. Allocating human, financial, and material resources.
23. Planning for employee turnover and organizational staffing requirements.
24. Anticipating barriers and resistance based on differing priorities.

Please indicate the extent to which you agree or disagree with the following statements by checking the appropriate number from 1 (strongly disagree) to 5 (strongly agree).

Role Ambiguity

25. I know exactly what is expected of me.
26. I have clear planned goals and objectives for my job.
27. Explanation is clear of what has to be done.

Role Overload

28. It seems like I have too much work for one person to do.
29. On my present assignment, the amount of work seems to interfere with how well I can do the job.
30. I receive an assignment with ample resources to complete it.*

Role Conflict

31. I receive incompatible requests from two or more people.
32. I work with two or more groups who operate quite differently.
33. I do things that are apt to be accepted by one person and not accepted by others.*

Please read each of the following statements and indicate the extent to which you agree or disagree.

Supervisor Support for Subordinate Enhancement

34. My manager/supervisor makes employee development a high priority.
35. My manager/supervisor and I have developed a plan that specifies areas in which I need skill or professional development.
36. My supervisor/manager supports my efforts to develop my skills by providing time and resources.
37. I have discussed my career development with my supervisor this year.
38. I have the opportunity to learn things that allow me to grow in my work.
39. There are good opportunities for advancement for me here.

On a day-to-day basis, the priorities of my business unit/functional organization are consistent with...

Perceived Structural Alignment

40. Managing expectations.
41. Meeting commitments.
42. Putting existing customers first.
43. Meeting new order commitments.
44. Operating within budget.
45. Anticipating needs.
46. Innovating solutions.

APPENDIX B: SAN JOSE STATE UNIVERSITY HUMAN SUBJECTS REVIEW BOARD APPROVAL